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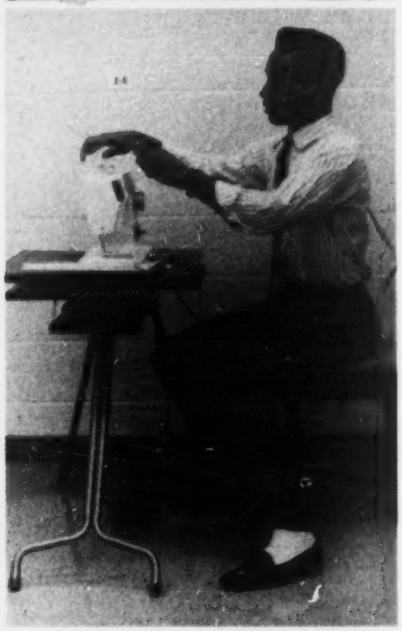
PHI DELTA

FEBRUARY 1990

KAPPAN

Plus a Special Section on
Middle Schools
Jomills Henry Braddock II
And Joyce L. Epstein
Guest Editors



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Let's Not Lose Our Balance

THIS NATION wants – and rightly so – its young people to master the content and skills that will enable them to lead America effectively into the 21st century. The signs are everywhere.

At its summer meeting, for example, the National Governors' Association (NGA) established a task force to determine which essential skills the schools should be teaching. Meanwhile, the math, science, English, and social studies specialists have turned out their own separate reports on curricular reform in recent months. The Council of Chief State School Officers (CCSSO) is trying to come up with better indicators of academic achievement, and the National Assessment of Educational Progress has been asked to set appropriate achievement goals for the subjects and grade levels it tests.

The education summit in late September added fuel to the fire. That meeting yielded an agreement to establish national goals in seven areas – one of which is the improvement of American students' performance on international assessments. In a follow-up meeting to the summit, a CCSSO task force unanimously approved (and delivered to President Bush and the NGA) six recommended goals for U.S. education – three of which deal with curricular content or with student achievement in specific disciplines.

Clearly, the national focus right now is on achieving better academic performance in the content areas. That's a laudable goal, as long as we also develop means of assessing the complex cognitive skills that we want young Americans to master.

Given the national bent, we were not surprised to discover, as this issue of the *Kappan* was in production, that the Johns Hopkins University Center for Research on Elementary and Middle Schools (which houses the researchers who prepared this month's incisive review of the state of education in the middle grades) seemed likely to lose its federal funding. The U.S. Education Department's Office of Educational Research and Improvement (OERI) had proposed eliminating school levels as a specific area of research. Instead, OERI recommended new centers that focus on – you guessed it – specific content areas.

Even a cursory reading of this month's special section on education in the middle grades will convince readers of the shortsightedness of this approach. Centers devoted to research on the content areas are important. But so are centers devoted to such discipline-spanning issues as tracking and grouping arrangements, staffing practices, the preparation of teachers for dealing with specific age groups, and effective ways of making education responsive to children's developmental needs. We need balance: information both on how to teach subject matter and on how to teach *children*. And the special section in this issue of the *Kappan* makes one thing very clear: there are plenty of unanswered questions regarding how best to handle the education of young adolescents.

Indeed, of the eight essential principles for transforming the education of young adolescents that were proposed by the Carnegie Task Force on Education of Young Adolescents in its June 1989 report, *Turning Points: Preparing American Youth for the 21st Century*, only *one* focuses on subject matter per se: that middle-grade schools transmit a core of common knowledge to all students. Although the task force devotes considerable attention to this principle, the other seven all deal with issues that cut across subject-matter boundaries.

One of the major federal roles in education is to support and foster the research on which effective practice depends. By the time you read this *Kappan*, a final decision on the missions of research centers will have been made. We hope that OERI arrived at the right one. – PBG

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PHI DELTA KAPPAN USPS 429-840

(ISSN 0031-7217) Published monthly, except July and August, by Phi Delta Kappa, Inc., Eighth & Union, P.O. Box 789, Bloomington, IN 47402. Subscription rate, $30 per year, domestic; $32.50 per year, foreign. Single copies $3.50 each; remit with order. Indexed in *Education Index* and in *Current Index to Journals in Education*; available on microfilm, University Microfilms, Inc., Ann Arbor, Mich. Second-class postage paid at Bloomington, Ind., and at additional mailing offices. *Postmaster*: Send address changes to *Phi Delta Kappan*, P.O. Box 789, Bloomington, IN 47402. Copyright 1990 by Phi Delta Kappa, Inc.

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What Matters in the Middle Grades — Grade Span Or Practices?

The hard work of developing excellent middle-grade programs is not accomplished merely by changing grade spans or constructing smaller buildings, Ms. Epstein reminds us. Instead, we must attend to practices that are responsive to the needs of early adolescents.

BY JOYCE L. EPSTEIN

OF ALL the questions raised about middle-grade education, the most frequent is, What is the best grade span for a middle-grade school? The answer to this question is important to educators as they plan new school buildings, attendance patterns, and program reforms. It is the first question raised by parents, who wonder how their children will be affected by new ways of organizing grades, such as moving fifth- or sixth-graders from an elementary school to a middle school. Parents worry that their youngsters will be forced to grow up too fast or will be exposed to temptations and troubles that are beyond their abilities to cope.

It is not surprising that the question of which grade levels will be designated as "middle" is a major concern. The transition to the middle grades seems ominous: children will have to adjust to a new school and new friends, to many new teachers, and to a large building that is sometimes far from home. Most students make the transition to early adolescence and to middle-grade schools successfully, just as most youngsters successfully negotiate other changes and transitions in their lives.[1] Nevertheless, transitions and changes are filled with risks as well as opportunities. It is wise to consider which of several ways of organizing grades would be most likely to give students "better" or "more responsive" programs.

Education in the Middle Grades: A National Survey of Practices and Trends, conducted by the Johns Hopkins University Center for Research on Elementary and Middle Schools, gathered data on organizational variations among schools that contain grade 7 in order to study how grade span affects school programs, teaching practices, and the successes or problems of students. This article reports selected results on how the range of grade levels is connected to school size and to grade-level enrollment, school goals, report card entries, and trends in middle-grade practices.[2]

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GRADE SPAN

In the national survey we found that schools in the U.S. that enroll seventh-grade students include about 30 different grade spans. We grouped these variations into six categories for our analyses:

Elementary/middle: primarily K-8 schools, but also Pre-K/7, Pre-K/8, K-7, K-9, 1-7, 1-8, 2-8, 3-7, 3-8, 3-9, 4-7, 4-8, and 4-9.

Elementary/middle/high: mainly K-12 schools, but also Pre-K/12 and 4-12.

Middle: mainly 6-8 schools, but also 5-8, 5-7, and 6-7.

7-8: mainly 7-8 schools, but also 7 only.

Junior high: mainly 7-9 schools, but also 6-9 and 5-9.

Middle/high: mainly 7-12 schools, but also 6-12 and 5-12.

The six categories represent different "starting" grades (elementary or middle) and different "ending" grades (middle or high school). Three categories of *combination schools* include two or more different levels of schooling in the same building. Two of these begin with the elementary grades and continue either through the middle grades (K-8) or through high school (K-12). One combination starts in the middle grades and continues through high school (7-12). Three categories of schools dedicated to early adolescents start in the middle grades: middle schools (typically 6-8), 7-8 schools, and junior high schools (typically 7-9). In this article, references to what is listed above as a category's main grade span (i.e., K-8, K-12, 6-8, 7-9, and so on) are shorthand for its full range of grade spans.

The number of schools with particular grade spans does not necessarily tell us anything about the number of students who attend schools with particular grade spans. There are, for example, many K-8 and K-12 school buildings, but most of them are small and enroll relatively few students. Table 1 shows the national percentages of school buildings and of seventh-grade students represented by each of the six grade spans.

Nationally, about 25% of all school

TABLE 1.
National Patterns of School Types and Enrollment of Seventh-Graders

Grade Span	Schools %	Seventh Graders %
Elementary/middle combination (K-8)	32.1	9.3
Elementary/middle/high combination (K-12)	10.5	2.4
Middle school (6-8)	25.3	39.3
7-8 school	11.0	24.6
Junior high (7-9)	8.4	17.4
Middle/high combination (7-12)	12.7	7.0

buildings are middle schools (mainly 6-8), and about 40% of all students in the seventh grade attend middle schools. If we consider all three categories of schools dedicated to early adolescents – middle, 7-8, and junior high schools – we see that they account for about 45% of all school buildings. These schools enroll about 80% of all seventh-graders. By contrast, about 32% of the public school buildings that contain grade 7 are elementary/middle (K-8) combinations, but these schools are attended by only 9% of all seventh-graders.

The types of schools and the patterns of attendance vary by region. In the West, for example, just over half (51%) of the schools are K-8 (elementary/middle combination) schools. But these schools enroll only 8% of the seventh-grade students in that region. Just about one-third (33%) of the seventh-graders in the West attend middle schools, which account for18% of the school buildings in that region.

SIZE AND GRADE SPAN

Another issue related to the organization of middle-grade schools is that of size. Parents and educators wonder, "How big should a middle-grade school be?" or, more specifically, "Should our community spend money on a new high school and put our middle-grade students into the old, large high school building, or should we build a smaller middle school and simply renovate the present high school?" These and other practical questions are being debated in many communities.

Several recommendations in the recent reports of various task forces concern school size, but none of the reports suggest that large schools should be demolished.[3] Instead, the preferred approach is to create small "communities for learning," even in large schools. The goal for large and small schools alike is to create responsive environments that provide students with care and support, as well as challenging programs that will increase their learning.

In our sample of schools that contain grade 7, enrollments range from five students to more than 2,250. Within any one category of school, the range is also great. For example, middle schools (6-8) range in size from 100 to 2,250 students. Moreover, school size has important implications for enrollment by grade level.

As shown in Table 2, combination schools (K-12, K-8, 7-12), which have many grade levels, tend to be smaller in size – averaging between 300 and 400

TABLE 2.
Grade Span, Size of School, and Enrollment per Grade Level

Grade Span	Average School Enrollment	Average Grade-Level Enrollment
K-12	319	25
K-8	340	42
7-12	377	62
7-8	491	249
6-8	557	180
7-9	733	241

A Day in the Life of an Exemplary Middle School

Vladimir Bekesh

Vladimir Bekesh

Above, Stephen Keith, the principal of Westlane, enjoys one of many daily one-to-one interactions with a student. Below, students proudly display their hard-earned "gold cards," which entitle them to special privileges. The cards are awarded for good grades in conduct.

students – and tend to have very small enrollments at each grade level. Schools dedicated to early adolescents include from one to four grades. Middle schools tend to be middle-sized, averaging 557 students, with about 180 students in each grade. Junior high schools (7-9) tend to be larger than most middle schools, averaging 733 students per school, with about 240 students per grade level. Most 7-8 schools are smaller than junior high schools, with an average of 491 students, but the two types of schools have similar enrollments in each grade.

Grade-level enrollment, even more than school size, affects how students are grouped for instruction. For example, because K-12 schools have an average of only 25 students per grade level, classes in these schools are necessarily heterogeneous, and grouping, if it occurs, is usually within-class. As enrollments increase, schools have more options for their decisions about homogeneous and heterogeneous grouping within grade levels. Of course, even small schools could group students *across* grade levels, but few schools at this time use cross-grade grouping as a standard policy.

If the enrollment in each grade level remains small or if students are assigned to other small subgroups (as in arrangements that create "houses," "teams," "clusters," or "schools-within-a-school"), then the size of the school building should have little impact on the quality of the instructional programs or on the success of the middle-grade students. However, most schools currently do not use houses, teams, clusters, or schools-within-schools. Size may be a problem, then, in a significant number of middle schools until responsive programs and practices are implemented so that students do not feel lost, ignored, or anonymous.

SCHOOL GOALS AND GRADE SPAN

Most schools cannot easily change their size or their grade span, but certain practices can be altered or adapted. In our national survey, principals were given a list of seven goals pertaining to academic, personal, and social skills and were asked to rank them according to their importance for *all* students. Regardless of the grade span of their schools, principals rated basic skills (including mastery of subject matter) as the most important goal and citizenship (including school and community service) as the least important goal.

The ranking of other goals, however, was influenced by the grade span of the school. Principals in schools dedicated to early adolescents – middle schools, 7-8, and junior high schools – ranked the seven goals in the following order:

1. basic skills (reading, math, writing, speaking, and subject-matter mastery);
2. personal growth and development (self-esteem, self-knowledge);
3. work habits (self-discipline, autonomy, and self-direction);
4. attitudes and commitment (positive attitudes about school, participation in class, school activities);
5. human relations (getting along with others, good race relations, multicultural education);
6. higher-level skills (reasoning, problem solving, critical and creative thinking); and
7. citizenship (including service to the school and community).

Principals of K-8 schools assigned less importance to the goal of personal growth and development. Principals of K-12 schools differed from all others by assigning more importance to higher-level skills. Principals of middle/high combination schools (7-12) assigned less importance to higher-level skills and to human relations.

It is risky to interpret rankings as clear indicators of what is or is not important to a principal or to a school. It may be, for example, that principals believe that all the listed goals are important and that the differences between the first- and seventh-ranked choices are not very great. It is possible, too, that the top rankings reflect the emphasis of a school's present program, not necessarily what a school would like to do. We know, for example, that all schools teach basic skills, but few have the necessary materials or trained personnel to offer strong programs in higher-level thinking or multicultural education.

The rankings may also indicate that – despite the wording of the survey question – schools regard some goals as applicable only to some students. For example, rightly or wrongly, problem solving and creative and critical thinking skills may be ranked relatively low because schools expect only some students to attain these goals. Similarly, service to school and community may be ranked low because only some students have the opportunity to participate in such activities or because that emphasis is only a small part of a school's program.

However, consistent patterns of rankings are significant. It is meaningful that schools of all grade spans set achievement in the basic skills (including subject-matter mastery) as the foremost goal for all students. It is notable that schools devoted to early adolescents rank personal growth and the development of self-esteem and self-knowledge as a higher priority than do other schools. Principals in these schools may be more aware of recommendations that programs for early adolescents should stress the development of positive self-esteem. They may also be working to balance the subject-centered and student-centered components of their programs.

The goals that schools set for students may affect course offerings, instructional programs, relationships between students and staff, and other practices. Our early analyses show, for example, that, regardless of the grade spans of their schools, principals who assign greater importance to higher-level skills report more use of active-learning approaches to instruction, which are believed to help students improve their critical and creative thinking.

There may also be connections between a school's goals and whether and how it provides special services to students. For example, other analyses show that schools dedicated to early adolescents, which rank personal growth and development higher than do other schools, more often assign students who need remedial instruction to an extra class period that meets while other students are assigned to electives. This is a relatively unobtrusive way to offer extra help to early adolescents, and it reduces the stigma often associated with the "pull-out" approach to remediation.[4] Schools' goals do not depend entirely on grade span, however; within any one organizational framework there is considerable variation in priorities.

REPORT CARD EVALUATIONS AND GRADE SPAN

Most schools do not present students with a formal list of goals, but all schools let students know what is important by what is monitored, rewarded, and evaluated. Our survey asked principals to indicate the types of marks and evaluations their schools include on report cards for middle-grade students.

Nearly all schools (99%) give middle-grade students letter or number grades for

academic performance in each subject. Performance grades provide a means for schools to monitor and evaluate the attainment of their foremost goal – basic skills. While performance grades are standard, grades for progress and effort are rare. Only about one-fourth (26%) of the schools that contain grade 7 give separate grades for effort in each subject. Still fewer schools (18%) recogn[illegible] dent improvement with grades fo[illegible] ress in each subject.

About half of the schools give students grades for conduct or written comments in each subject. Computer-generated comments are used by about 30% of the schools. Good grades in conduct and positive comments may motivate students to work harder by letting them know that teachers are paying attention to them and recognizing their progress. Poor grades in conduct and negative comments may not be very motivating for students, but they may help teachers explain poor performance and establish standards for better behavior and schoolwork in the next grading period.

There is a definite relationship between a school's grade span and the type of report card entries that it uses.

- Middle schools (6-8) and 7-8 schools give the greatest number of different types of information on their report cards (an average of 3.2 different entries), whereas middle/high combination schools (7-12) give the fewest (an average of 2.4 different entries). The most common entries are grades for performance, grades for conduct, and written or computer-generated comments.
- K-8 schools are most likely to provide students with hand-written comments. Larger junior high schools (7-9) are most likely to provide students with computer-generated comments on their report cards.
- Grades for effort are most common in schools that end with middle grades – particularly elementary/middle (K-8) schools and middle schools (6-8) – and least common in schools that contain high school grades (particularly 7-9 and 7-12).
- A fairly large proportion of K-12 schools (34%) award grades for progress. This may be explained in part by the relative ease of monitoring the progress of the small number of students at each grade level. Junior high schools (7-9) give grades for progress significantly less frequently than do schools serving other grade spans.

Some principals noted that they use additional kinds of grades and messages on their report cards for middle-grade students. These include reports on attendance, absence, and tardiness by subject; ratings of students' social development, work habits, and citizenship; indicators of the students' reading levels or levels of learning; and requests for parent conferences. The development of citizenship may be higher on the list of goals in [illegible]ools that give students grades in that area, but too few principals listed citizenship as a report card entry for analyses to be meaningful. One school uses progress reports that are written by the students and teachers together. Another adds hand-written comments to clarify computer-generated checklists.

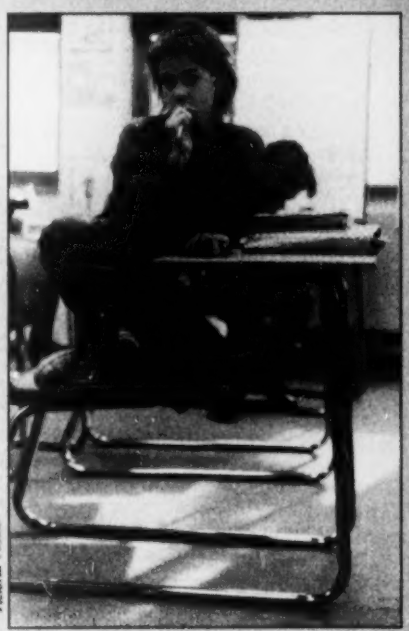
As students enter the middle grades, their report card grades tend to go down, even as their overall competencies and knowledge go up.[5] Many students who received top grades in elementary school receive just average grades when they are compared to new populations of students from other elementary schools. Students who were average elementary students may be rated below average in the middle grades. The changing pattern of students' grades makes clear the need for middle-grade schools to use many different kinds of evaluation to motivate students. For those who are trying hard but cannot achieve top grades (or sometimes even passing grades) when performance is judged only in relative terms, effort and progress grades could provide important official recognition of good work. Effort and progress grades or teachers' personal comments may encourage students to work harder and to maintain or enhance their self-concept as learners, even if they cannot be the best students in the class.

Other analyses of these data show that, regardless of their schools' grade spans, principals rate their programs for early adolescents as stronger overall if the schools use progress and effort grades on their report cards. Progress grades and hand-written comments are also associated with principals' expectations for lower dropout rates (particularly among males) before high school. Indeed, these more responsive report card entries may be especially important for boys, who tend, on the average, to get lower grades than girls and so may need motivators other than traditional grades to help keep them in school.[6]

Virtually every middle-grade school in the country uses report cards, but rela-

A Day in the Life of an Exemplary Middle School

Vladimir Bulzak



Victoria Voelker

Above, sixth-grade students prepare to leave their assigned cafeteria table. A "table captain" helps to organize other students and, with a teacher supervisor, checks the table after meals. Below, a seventh-grader adopts a reflective pose in a mid-afternoon math class.

tively few have designed the form and content of the cards to be responsive to the needs of early adolescents for strong support and for recognition of their effort and progress in learning.

GRADE SPAN AND TRENDS IN MIDDLE-GRADE PRACTICES

Educators and leaders of the "middle school movement" have made many thoughtful suggestions regarding practices for middle-grade education.[7] Although educators are increasingly aware of the recommendations that have been made regarding the organization and instructional approaches for the middle grades, we do not have a clear idea of the prevalence or persistence of specific practices in middle-grade schools today. Our survey was designed to obtain this information, but we also wanted to know whether principals plan to adopt any recommended practices in their schools in the future and whether there are recommendations that they reject.

Approximately one-fourth of the principals provided usable information on whether, in the next three years, they plan to adopt any of 22 often-recommended practices for the middle grades. Although our data are admittedly limited, the principals who provided clear information on trends were likely to be those who knew their schools' histories and had plans for the future. There is a definite link between a school's grade span and the principal's expected adoption or rejection of these practices, as shown in the following examples.

Scheduling. Principals of schools dedicated to early adolescents predict that they will increasingly adopt flexible scheduling. This system permits class periods to differ from day to day in order to accommodate students' needs and varying instructional activities. Approximately 15% of schools dedicated to early adolescents now use some kind of flexible scheduling; that number could increase to approximately 35% in the next three years. Flexible scheduling is currently most common in K-8 schools, where teachers may have more control over the way they schedule time in self-contained classrooms or where they may be able to revise schedules in cooperation with one or two other teachers.

Another trend in scheduling practices is the use of an eight-period day. Principals in schools dedicated to early adolescents are more likely than principals in combination schools to consider implementing this practice. In the next three years the number of these schools that use the eight-period day may increase from about 30% to over 40%.

Curriculum and instruction. The number of middle/high combination schools using exploratory courses and minicourses will increase from about 35% at present to about 80% in three years. The number of schools dedicated to early adolescents that offer these courses will increase from about 45% at present to about 65%.

In 7-8 schools and middle/high combination schools (7-12), more principals are planning to add independent projects in all subjects to their students' programs.

The number of schools for early adolescents that incorporate cooperative learning in their programs will almost double over the next three years, from about 30% to over 50%.

More responsive practices. All types of middle-grade schools except K-8 schools expect to increase their use of interdisciplinary teams of teachers over the next three years. In middle schools (6-8), about 70% of the principals expect this to be part of their program within that period (in contrast to fewer than 20% of K-8 principals). Principals of junior high schools (7-9) project the greatest increase in the use of interdisciplinary teams, with more than 25% of the respondents in this category reporting plans to add teams of teachers to their program. At the same time, about 20% of the junior high school principals expect to decrease the use of departments with separate chairpersons in the next three years.

Three years from now, common planning periods for interdisciplinary teams may be in effect in 60% of middle schools (6-8) and 7-8 schools. The number of other middle-grade schools that provide common planning periods will increase from about 10% to 40%.

Principals in schools dedicated to early adolescents anticipate dramatic increases (from 20% to close to 40%) in the practice of assigning students to the same homeroom or advisory teacher for all the years in the middle grades.

Over the next three years five types of school practices to involve parents in their children's education will increase considerably in all categories of middle-grade schools except K-8 and K-12. However, some principals of schools of all grade spans are reluctant to encourage parent involvement in the middle grades. More than 50% of the principals report that they do *not* plan to add parent volunteers to their programs. This may be because of the difficulty of recruiting and training volunteers when many parents work or because some middle-grade teachers do not want parents in their classrooms. By contrast, few principals in schools of any grade span will oppose parent/teacher conferences. Parent/teacher organizations, workshops to inform parents about school programs and about early adolescents, and teachers' efforts to involve parents in learning activities at home are accepted by some principals (particularly in 6-8, 7-8, and 7-9 schools) and rejected by others.

Principals of K-8 and K-12 schools may emphasize parent involvement in the early grades, and principals may not be as sensitive to parents' needs for information about and involvement with early adolescents.[8] Overall, principals' plans for parent involvement over the next three years vary within and between different types of middle-grade schools.

In addition to reporting practices that they think they *will* use in the next three years, the principals indicated which of the 22 practices they *will not* use in that time span. Although middle school (6-8) principals are less likely than others to reject certain practices, even most of them (over 50%) report having no use for the practices of assigning students to the same homeroom teacher for more than one year, of grouping students across grade levels for instruction, of organizing an eight-period day, or of establishing schools-within-a-school that have separate administrative staffs. Over the next three years, large numbers of principals in all types of middle-grade schools are likely to continue to reject the use of these practices.

The principals' plans to use or reject recommended practices vary by grade span. Overall, principals of K-8 schools are the least likely to use or plan to use many practices that are commonly recommended for middle school education. Thus interdisciplinary teams, common planning time, exploratory courses or minicourses, and other middle-grade practices are not prominent in current or planned programs for early adolescents who attend K-8 schools. Principals of K-8 schools are less likely than principals of other middle-grade schools to endorse staff development in early adolescence and in specific teaching strategies for the middle grades, to arrange extracurricu-

lar activities or activity periods for all students, or to consider the use of an eight-period day. Fewer than 20% of K-8 principals predict that they will adopt these practices over the next three years, while between 34% and 88% of principals in other middle-grade schools predict that they will do so. The small grade-level enrollments of K-8 and K-12 schools may make it impractical to implement some middle-grade practices in the same way as do larger 6-8, 7-8, or 7-9 schools.

K-8 schools may purposely reject middle-grade practices in order to maintain an elementary school environment or to concentrate on basic skills instruction for all students. However, K-8 schools may in some ways be unresponsive to the changing needs of their students as they enter early adolescence. Whatever the reason, the data from principals suggest that for middle-grade students, K-8 and K-12 schools currently offer – and plan to continue offering – very different programs from schools dedicated to early adolescents.

More than 70% of the principals surveyed indicated that they are likely to add to their school programs in the next three years at least one of the 22 practices that they were not currently using. Moreover, approximately one-third of the principals reported that they had tried and dropped some of the recommended practices during the preceding three years. Clearly, developing an effective middle-grade program is a fluid process.

Summary of trends. What are the "signature" practices for middle-grade education? Which practices lie at the heart of middle-grade programs and sustain their development? There are two patterns in the data on expected trends that provide some clues to the answers.

An overall increase of 10% or more is anticipated in the frequency of use of the following practices over the next three years:

- interdisciplinary teams of teachers;
- common planning time for teams of teachers;
- flexible scheduling;
- students assigned to the same homeroom or advisory teacher for all years spent in the middle grades;
- cooperative learning as an instructional approach;
- exploratory courses and minicourses;
- parent involvement in workshops on early adolescence; and
- parents as volunteers in the middle grades.

These items may be viewed as "key practices" in the middle grades, in that over the next three years they are more likely to be adopted in more schools than other practices. Yet even these popular practices will be not be adopted at the same rate by all types of middle-grade schools. Principals in schools dedicated to early adolescents are more likely to add these (and other) practices to their programs. Schools that contain elementary grades (K-8, K-12) are less likely to add new organizational forms for middle-grade students than are schools dedicated to early adolescents.

We also asked principals to assess the quality of their present programs, and their replies give us another indication of how middle-grade practices will change over the next three years. Principals evaluated how well their present practices match their ideal by rating their programs on a four-point scale from weak to excellent. Overall, principals in suburban and urban middle schools (6-8) rated their programs higher than did principals in other schools. Principals of junior high (7-9) and middle/high combination (7-12) schools rated their programs lower overall in quality than did principals of other schools. Junior high schools in urban and rural areas, middle/high combination schools in suburban and rural areas, and 7-8 schools in rural areas suffer by comparison to middle-grade schools of other types and in other locations.

Although it is natural to praise schools that are "excellent or exemplary," principals who rate their schools as "fair" and describe their program as "developing and changing" may be improving their schools in exciting ways. Nevertheless, the principals' ratings can help us identify which practices principals see as related to stronger programs.

Seven of the 22 commonly discussed practices were significant predictors of positive ratings of middle-grade programs. The single strongest predictor of higher ratings of the quality of school programs overall is the use of common planning periods for members of interdisciplinary teams. Other significant predictors of high ratings are flexible schedules, common planning periods for departments, eight-period days, extracurricular activities or activity periods for all students, and cooperative learning strategies that include group rewards for mastery of academic skills.

The features that contribute to higher ratings of program quality involve large investments on the part of the schools. Such practices alter the way teachers work together, the time allotted for student learning, the way students work together, and the balance between nonacademic activities and academic coursework. Principals rate their programs higher if they have already made these relatively difficult changes in scheduling, instruction, and responsiveness to the diverse skills, talents, and needs of students.

A Day in the Life of an Exemplary Middle School

Victoria Kloller

An assistant principal, Ron Davis, discusses the day's events with a student.

HOW MUCH IS GRADE SPAN THE ISSUE?

Which grade span is best for educating early adolescents? Is grade span the most important issue for middle-grade reform, or is it a distraction from more important and more difficult issues? With the information available at this time, no one can say unequivocally that one particular grade span or program is "best" for all middle-grade schools in the U.S. Our survey reveals a number of complexities underlying middle-grade education and reform.

1. *Most schools that contain grade 7 have not yet developed educational pro-*

Educators in middle-grade schools need to take a hard look at the goals they now see as low priorities.

grams based on recommended practices for the middle grades. Although principals expect to increase their use of some of these practices over the next three years, most schools have a long way to go before they can be said to be genuinely responsive to the characteristics of early adolescents.

If school goals represent the "outcomes" that schools want for their students, then educators in all categories of middle-grade schools need to take a hard look at the goals they now see as low priorities. Many of these "low-priority" goals are believed to be important for early adolescent development – such as higher-level thinking skills, positive human relations and multicultural education, and citizenship and community service.

2. *Some practices are more prominent in certain types of middle-grade schools than in others.* Schools with different grade spans offer different programs, set different goals, evaluate students according to different criteria, and plan different programs for the future. In some ways, then, the type of school makes a real difference in the education of early adolescents.

Overall, middle schools (6-8) and 7-8 schools use more of the practices that are recommended for responsive middle-grade education than do other schools.[9] Principals in these schools, particularly those in suburban and urban settings, give their programs higher ratings overall. By contrast, junior high schools (7-9) and middle/high combination schools (7-12) use fewer responsive practices than do other types of schools. Principals in these schools give lower ratings to the overall quality of their programs for early adolescents. For example, middle/high (7-12) schools offer fewer opportunities for remedial instruction and fewer activities to ease transitions to the middle grades than do other types of middle-grade schools.[10] Junior high (7-9) schools are less likely than other middle-grade schools to use advisory group periods and responsive report card procedures. K-8, K-12, and junior high (7-9) schools are weaker than middle schools (6-8), 7-8 schools, and 7-12 schools in their organization of and commitment to interdisciplinary teams. K-8 schools place a stronger emphasis on drill and practice than other middle-grade schools. And there are clear differences in course offerings and instructional approaches in the different types of middle-grade schools.

3. *Regardless of grade span, good practices make stronger programs.* Practices vary within categories of schools, and some schools of different types implement similar programs. Regardless of grade span, principals rate their programs higher overall and expect students to have fewer problems when their schools emphasize practices that support the social, personal, and academic development of early adolescents. In some ways, then, grade span doesn't make a difference in the education of early adolescents. Rather, what happens in a school or classroom is more important than the name on the school door or the size and shape of the building. The hard work of developing excellent programs is not accomplished merely by changing grade spans or constructing smaller buildings, but by attending to practices that are responsive to the needs of early adolescents.

4. *There is much more to be learned.* In order to provide useful information to educators who must make tough decisions about middle-grade practices for the early adolescents who attend their schools, we need new data on how students' learning, attitudes, and behaviors are influenced by different middle-grade practices in schools of different grade spans. The upcoming National Education Longitudinal Study of 1988 (NELS:88) surveys of eighth-grade schools, students, teachers, and parents, sponsored by the National Center for Education Statistics, along with other data collected expressly to focus on the importance of recommended practices for the middle grades, will help advance our knowledge of these crucial issues.

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1. Daniel Offer et al., *Teenage World: Adolescent Self-Image in Ten Countries* (New York: Plenum, 1988).

2. Other information on this topic is reported in Joyce L. Epstein and Douglas J. Mac Iver, *Education in the Middle Grades: Overview of a National Survey of Practices and Trends* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1989); and Joyce L. Epstein and Douglas J. Mac Iver, "The Middle Grades: Is Grade Span THE Important Issue?," *Educational Horizons*, Winter 1990, in press.

3. Carnegie Task Force on Education of Young Adolescents, *Turning Points: Preparing American Youth for the 21st Century* (New York: Carnegie Council on Adolescent Development of the Carnegie Corporation, 1989); California State Department of Education, *Caught in the Middle: Educational Reform for Young Adolescents in California Public Schools* (Sacramento: California State Department of Education, 1987); and Maryland Task Force on the Middle Learning Years, *What Matters in the Middle Grades?* (Baltimore: Maryland State Department of Education, 1990).

4. Douglas J. Mac Iver and Joyce L. Epstein, *Responsive Education in the Middle Grades: Teacher Teams, Advisory Groups, Remedial instruction, School Transition Programs, and Report Card Entries* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1989).

5. Anne C. Petersen, "Early Adolescence: A Critical Developmental Transition," paper presented at the annual meeting of the American Educational Research Association, San Francisco, 1986.

6. Mac Iver and Epstein, p. 23.

7. William M. Alexander and Paul S. George, *The Exemplary Middle School* (New York: Holt, Rinehart & Winston, 1981); Gail Dorman, *Middle Grades Assessment Program* (Carrboro, N.C.: Center for Early Adolescence, 1984); D. H. Eichhorn, *The Middle School* (New York: Center for Research in Education, 1966); Paul S. George, *The Middle School: A Look Ahead* (Columbus, Ohio: National Middle School Association, 1977); Joan Lipsitz, *Successful Schools for Young Adolescents* (New Brunswick, N.J.: Transaction Books, 1984); and John H. Lounsbury, *Perspectives: Middle School Education, 1964-1984* (Columbus, Ohio: National Middle School Association, 1984).

8. Joyce L. Epstein, "What Principals Should Know About Parent Involvement," *Principal*, vol. 66, 1987, pp. 6-9; Joyce L. Epstein and Susan L. Dauber, *Teachers' Attitudes and Practices of Parent Involvement in Inner-City Elementary and Middle Schools* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1988); and Susan L. Dauber and Joyce L. Epstein, *Parents' Attitudes and Practices of Involvement in Inner-City Elementary and Middle Schools* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1989).

9. Similar findings have been reported in other surveys that cover less representative samples of less extensive accounts of middle-grade practices, including Gordon Cawelti, "Middle Schools: A Better Match with Early Adolescent Needs, ASCD Survey Finds," *ASCD Curriculum Update*, November 1989; and William M. Alexander and C. Kenneth McEwen, *Schools in the Middle: Status and Progress* (Columbus, Ohio: National Middle School Association, 1989).

10. Mac Iver and Epstein, p. 18. K

Tracking the Middle Grades: National Patterns of Grouping For Instruction

Mr. Braddock reaches the disquieting conclusion that learning opportunities in the middle grades remain highly stratified.

BY JOMILLS HENRY BRADDOCK II

NEARLY EVERY school serving early adolescents must face the dilemma of dealing with students' diverse academic skills and, at the same time, minimizing the use of labels that create invidious distinctions, lower students' self-esteem, and lead to feelings of apathy. Used wisely, instructional grouping practices help schools meet the varying needs of students and create a positive learning climate in schools. Used unwisely, such grouping practices exaggerate differences, label some students as slow or stupid, and result in a poor climate for learning.

There has been a dramatic trend in recent years to alter the grade span of schools that include the middle grades, but it is not clear that the changes in grade span have been accompanied by other organizational changes that are conducive to creating more appropriate learning environments for early adolescents. For example, we do not yet know whether the trend away from junior high schools (7-9) and toward middle schools (6-8) means that these schools use the new scheduling and grouping practices that have been suggested by recent theories on appropriate learning environments for early adolescents. To shed some light on this question, I will present some current data on the use of between-class grouping and regrouping in American schools serving early adolescents, taken from the recent national survey of middle-grade schools conducted by the Johns Hopkins University Center for Research on Elementary and Middle Schools.

The actual practices of scheduling and grouping used at a given school are affected by such local constraints as available human and material resources, demographic conditions, and educational philosophies.[1] These local constraints can include the size and mix of student enrollment, the expertise of the staff, the available space and instructional materials, and the regulations affecting curriculum requirements and allocation of time. Within these constraints, many schools are able to institute quite complex scheduling and grouping practices to address their educational goals.[2]

In the middle grades ability-grouped class assignment often takes the form of block scheduling. That is, students are assigned to one class by ability and move together from subject to subject. Less frequently, students may be assigned by ability to each subject separately. Some block schedules keep students together

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A Day in the Life of an Exemplary Middle School

Victoria Voelker

Music teacher Frank Penwell demonstrates correct fingering for a student during a group piano lesson. Students can also pursue their musical interests in the school's band, orchestra, or choir.

for instruction from several teachers: students move as a single group from teacher to teacher throughout the day, or each class of students remains in the same room and teachers move as instructional periods change. In other cases, where instructional regrouping of students occurs within a classroom, students may work with different classmates over the course of a school day – even if they are taught all subjects by only one or two teachers.

Keeping students in heterogeneous classes most of the day but regrouping them for selected subjects (e.g., reading or mathematics) is a common practice in elementary schools. For example, a school might schedule three fifth-grade reading classes to meet concurrently so that students would leave their heterogeneous homerooms and join a class organized according to reading levels. Similarly, middle or junior high school students may be grouped by ability for some subjects but not for others.

However, research strongly suggests that grouping decisions can have a negative impact on some students if a school establishes broad, rigid tracks based on general tests of performance or ability. In these situations, students in the lowest tracks or ability groups are often stigmatized by teachers and peers as poor learners. They then internalize these negative expectations and develop poor self-images and a lack of confidence in their abilities as learners. Walter Schafer and Carol Olexa quote a student who is painfully aware of the demoralizing effects of being assigned to a low track:

> When you first go to junior high school you do feel something inside – it's like an ego. You have been from elementary to junior high, you feel great inside. . . . You get this shirt that says Brown Junior High . . . and you are proud of that shirt. But then you go up there and the teacher says – "Well, so and so, you're in the basic section, you can't go with the other kids." The devil with the whole thing – you lose – something in you – like it goes out of you.[3]

Specific advantages and disadvantages have been cited for homogeneous as opposed to heterogeneous grouping of students.[4] On the one hand, homogeneous grouping is assumed to permit instruction that is better targeted to the actual needs of students and thus can motivate them more effectively. On the other hand, homogeneous grouping practices may not reduce heterogeneity enough to provide better instruction, may incorrectly assign many students (if based on a single or infrequently assessed criterion), may result in racially or ethnically identifiable classes or tracks in desegregated schools, may stigmatize students and teachers in low groups, or may lead to the creation of academic elites. A heterogeneous mix of students, however, may offer important learning opportunities to all individuals in the class.

The way students are assigned to classes also defines their peer groups. Some middle school educators have maintained that keeping the same limited number of classmates together for most activities in the middle grades will help the personal development of early adolescents. Clear research evidence to assess this prediction is not available. However, there is little disagreement that rigid tracking that produces stable groups of poor achievers is not a good idea because of the negative images that accompany placement in the low tracks.

ABILITY-GROUPED CLASS ASSIGNMENT

Homogeneous instructional groups can be established through between-class or within-class assignments. Whichever method is used, students can be grouped separately for each subject, according to their prior performance. Our survey of middle-grade principals asked questions to determine the particular subjects at each grade level in which students are assigned to homogeneous classes according to their abilities or levels of achievement.

How pervasive are ability-grouped class assignments in the middle grades? Overall, the use of between-class ability grouping or "tracking" to create classes that are homogeneous in ability is not uncommon in grades 5 through 9. However, the principals' responses (presented in Table 1) reveal some important differences in grouping practices by grade level and subject.

Table 1 shows the percentage of schools that use homogeneous grouping in all, some, or none of their classes at specific grade levels. Roughly two-thirds or more of the nation's schools serving early adolescents report using at least some between-class ability grouping, and more than 20% assign students to all of their classes according to ability. The proportion of principals reporting that no homogeneous grouping is used declines from a high of about one-third of the schools at grade 5 to about one-fourth of the schools at grade 8.

An earlier analysis of these data determined that the practice of ability group-

TABLE 1.
Grouping and Regrouping Practices in Schools Serving Early Adolescents

Grouping Practices	Grade 5 %	6 %	7 %	8 %	9* %
Between-Class Ability Grouping					
All subjects	**23**	**22**	**22**	**23**	**11**
Some subjects	**40**	**44**	**47**	**50**	**47**
Reading	96	86	63	54	16
English	24	44	54	54	62
Mathematics	57	77	84	88	94
Science	4	5	14	16	38
Social Studies	4	4	10	10	19
No subjects	**37**	**34**	**31**	**27**	**42**
Regrouping for Instruction					
Keep same classmates	69	52	34	31	17
Change classmates for one or two subjects	28	32	21	21	23
Change classmates for most subjects	3	16	45	48	60

*Grade 9 figures are underestimates because of the exclusion of 9-12 high schools from the survey.

ing for all subjects is more often found in schools with sizable (more than 20%) enrollments of African-American and Hispanic students. And this relationship between full-scale ability grouping and ethnic concentration was found to persist even when schools are disaggregated in terms of the "average" ability of students.[5] Thus the concerns raised by the National Education Association and the Carnegie Task Force on Education of Young Adolescents, among others, regarding the impact of school tracking and grouping practices on students' equal access to learning opportunities warrant further and more careful examination.[6]

In other analyses based on data from the Johns Hopkins national survey, Joyce Epstein and Douglas Mac Iver found a variety of relationships between type of middle-grade school and ability grouping.[7]

1. The number of *students* who experience at least some homogeneous grouping increases across the grades from about 70% of fifth-graders to 80% of sixth-graders and 85% of seventh-, eighth-, and ninth-graders.

2. The proportion of *students* who are in fully "tracked" programs, in which all classes are grouped by ability, increases from 12% of fifth-graders to about 25% of sixth- through ninth-graders.

3. In the fifth and sixth grades, middle schools are more likely than K-8 schools to have some classes grouped by ability but less likely to have all classes grouped by ability. In part this difference stems from the differing numbers of students per grade level who can be regrouped during a school day. This pattern also reflects middle schools' attempts to deal with two seemingly conflicting demands: to help students fulfill their own potential (through some limited and flexible grouping by ability, as in math classes) and to help students meet and work with students who are different from themselves (through some heterogeneous grouping in other classes, as in social studies, science, or exploratory activities).

4. Middle schools, 7-8 intermediate schools, and junior high schools use similar grouping practices in the seventh and eighth grades. Between 9% and 17% of these schools have no classes that are grouped homogeneously, between 24% and 27% have all classes grouped homogeneously, and between 57% and 64% have some classes grouped by ability.

5. Students in "combination schools" (K-8, 7-12, K-12) experience less between-class grouping than do students in schools devoted solely to the middle grades. Of the schools dedicated to early adolescents, junior high schools use more homogeneous grouping than do middle schools or 7-8 intermediate schools. Middle-grade students in K-12 combination schools are least likely to be grouped by ability in any class. The number of pupils per grade level – even more than the size of the school – probably affects how much ability grouping occurs at different grade levels in schools of different grade spans. For example, with an average of only 25 students per grade level, classes in K-12 schools are typically heterogeneous. Grouping, when it occurs in K-12 schools, is within-class.

Our survey also asked principals about the academic subjects in which students are grouped by ability. Table 1 shows the percentage of schools that use between-class ability grouping with early adolescents, by academic subject and grade. In grades 5 and 6, reading (96% and 86%) and mathematics (57% and 77%) are the two subjects most often grouped by ability. In grades 7 and 8, mathematics (84% and 88%), reading (63% and 54%), and English (54% for both grade levels) are most often grouped by ability. In grade 9, reading (grouped by ability 16% of the time) all but disappears as a separate subject, while science (38%) is increasingly grouped according to prior achievement. Epstein and Mac Iver found that English is not as frequently grouped homogeneously in 6-8 middle schools as it is in 7-8 intermediate or in 7-9 junior high schools, while reading is more often grouped homogeneously in middle schools, where it is more likely to be a separate subject.[8]

Schools increasingly assign students to ability-grouped classes in mathematics as they move to higher grades (from 57% in grade 5 to 94% in grade 9). Schools also increasingly group students by ability in English as they move to higher grades (from 24% in grade 5 to 62% in grade 9). Across all grades, science and social studies are the subjects least often grouped by ability.

REGROUPING FOR INSTRUCTION

School policies may dictate that students change classmates once, twice, or many times during the school day. Students may be assigned to all subjects by ability, based on a single criterion (such as a composite achievement or reading test score), or students may be regrouped for different subjects, based on several criteria (such as test scores in reading, math, and science; recommendations from teachers; or students' special interests). When schools use a single criterion for grouping decisions, students typically follow the same classmates (who are similar in reading skills, for example) from class to class, even though their abilities may differ in other subjects. When schools use multiple criteria for placement decisions, students often have different classmates with similar abilities in each subject. Variations in grouping and scheduling practices may purposely create some classes grouped by ability and others grouped heterogeneously.

In the middle grades, students' classmates may be drawn from a small number of students on a team or from a large

A Day in the Life of an Exemplary Middle School

Vladimir Bobosh

Intense concentration shows on the face of this student as he puts the finishing touches on a clay croc.

number of students from one or more grade levels in the school. Changing classmates means that students have more opportunities to interact with others who have different skills and talents. If students change classmates too often, however, they may feel unattached and unknown to any group of peers or friends.

Our survey asked middle-grade principals which of three scheduling practices is used to define an individual's classmates in each grade: 1) students stay with the same classmates for all academic subjects; 2) students remain with the same class for most academic subjects but are regrouped with students from other classes for one or two academic subjects; or 3) students change classmates for all or most academic subjects. The bottom part of Table 1 shows considerable variation in current middle-grade practices of regrouping for instruction.

The use of intact ability-grouped class assignments declines as students move to higher grades (from a high of 69% in grade 5 to a low of 17% in grade 9). Conversely, there is a marked increase in regrouping for instruction as students move to higher grades (from a low of 3% in grade 5 to a high of 60% in grade 9). Grade 7 appears to be the pivotal point where regrouping for most subjects becomes the norm. Nevertheless, even at grade 7, roughly one-third of middle-grade principals reported no regrouping for instruction.

Epstein and Mac Iver's analysis of the same data found that *students* in the sixth grade are about equally divided: one-third keep the same classmates for all subjects, one-third change classmates for one or two subjects, and one-third change classmates for most periods during the day. Middle schools (6-8) show the greatest use of regrouping in sixth grade: almost 40% of sixth-graders in middle schools change classmates for most subjects, and by grade 7 most students change classmates for most subjects. In combination schools (K-8, 7-12, and K-12), however, there are still significant numbers of students – between one-third and one-half – who remain with the same classmates all day. Regrouping is especially common in middle schools, 7-8 schools, and junior high schools. By grade 8, 70% of the students in middle schools and 84% of the students in junior high schools are regrouped for three or more classes during the school day.[9]

Robert Slavin cites three important advantages of regrouping for selected subjects over ability-grouped class assignment.[10] First, students who remain in a heterogeneous group most of the day are likely to identify with that group, thus reducing the labeling effects and eliminating the possibility of creating racially identifiable ability groups. Second, students grouped only for specific subjects are likely to be grouped solely on the basis of their achievement in reading or mathematics, not according to general achievement or ability level, and this practice leads to a meaningful reduction in heterogeneity in the skill being taught. Third, regrouping plans tend to be more flexible than ability-grouped class assignment, because changing between reading or mathematics classes is less disruptive than changing basic class assignments. Thus any errors in assignment can be more easily remedied, and any changes in a student's performance level can be accommodated with a change in grouping.

In sum, regrouping for instruction has been found to be effective if the instructional level and pace are completely adapted to the students' performance level and if the regrouping is done for only one or two subjects so that students stay in heterogeneous placements most of the day. Conversely, when regrouping has been done without adapting the pace and level of instruction or when it has been done in more than two different subjects, it has not been found to be instructionally effective.

BEYOND THE TRACKS

The problem of heterogeneity in student populations must be addressed in some way. But ability-grouped class assignment, by far the most common strategy, has repeatedly been found to be ineffective for increasing student achievement and to exert the greatest potential harm of all grouping plans.[11]

However, there are alternatives to rigid tracking that can address the heterogeneity of students' needs and interests and at the same time exert a less negative impact on the personal development of individuals who are behind. The overuse and misuse of tracking in the middle grades is almost inevitable when a single general criterion – such as grade-point average or composite score on the most recent achievement test – is used to determine a student's placement for the academic program. Because such unfortunate general practices seem to be common at all levels of schooling and because innovative uses of tracking are hard to find, we suggest the following research-based strategies for limiting and improving tracking practices.

1. *Between-class tracking.* If used at all, between-class tracking should be limited to the basic academic courses in which the students' different levels of prior preparation are clearly the major reasons for grouping for instruction. In the elementary grades, research has indicated that grouping plans are most beneficial when students remain in heterogeneous classes for most of the day and are regrouped only in mathematics and reading on the basis of their current level of skill. For the middle grades, it is reasonable to predict that tracking would serve best if it were similarly limited or perhaps even further restricted to subjects (e.g., mathematics) that have specific prerequisites at each step of learning.

2. *Placement criteria and allocation of resources.* Even when tracking is limited to basic courses, there is a need for better criteria for placement and better ways of allocating resources. Tracking in basic courses makes sense only if it provides students with a learning environment more closely matched to their current needs. For example, the criteria for assigning students to courses should be current and differentiated so that placing an individual in upper-level mathematics and lower-level reading would not be unusual. At a minimum, separate tests and recent grades in each tracked subject should be used. School districts should also strengthen instruction in the lower tracks by reducing class sizes and allocating more resources to these groups. Districts should also work with teacher representatives to devise regulations and incentives that bring more of the best teachers to the students who need them most.

3. *Extra help.* In nontracked academic classes, all students should be given better opportunities to earn good grades. Reasonable sources of extra help should be regularly available to any student having difficulties in a nontracked class. For example, the school might provide additional coaching classes or sessions with peer tutors during regular school hours. In addition, criteria for awarding grades should permit credit for growth or progress so that students have different ways of demonstrating competence and can be rewarded for effort.

4. *Experimentation.* Schools should experiment with placement methods for tracked courses. Students should be offered greater involvement in the placement process and should be given incentives to carry out challenging assignments. Schools could foster commitment to demanding upper-track courses by giving older students more responsibility for their own class assignments and by structuring an incentive grading system. For example, students might be given some choice of track in required courses with interesting grading options (such as pass/fail or extra credit for certain offerings).[12]

There are other alternatives to rigid tracking that can address the heterogeneity of student needs and interests with fewer negative effects. Cooperative learning – an approach that allows students to work in small, mixed-ability learning teams – is perhaps the most widely recommended and best-documented instructional strategy for addressing the problem of student diversity in heterogeneous classrooms. Research has shown that when cooperative learning teams are rewarded in accordance with the learning of all group members, students learn consistently more than do students in traditional settings.[13] Yet we find that, at present, middle-grade schools are making limited use of such alternative approaches for addressing student diversity. According to the reports of principals in our survey, cooperative learning, for example, is used by only 21% of the schools in which seventh-graders are grouped heterogeneously for all instruction in the academic subjects. Middle schools, however, were more than twice as likely (34%) to report using this highly recommended and proven practice than were 7-8 intermediate schools (16%) or 7-9 junior high schools (15%).

The use of between-class ability grouping in the middle grades is widespread: roughly two-thirds of the middle-grade principals surveyed reported that their schools use the practice in at least some academic subjects, while more than one-fifth said that their schools do so in all subjects. Moreover, the use of between-class grouping is especially common in middle-grade schools with high concentrations of Hispanic and African-American students. Although the regrouping of students for instruction is not *un*common, between one-third and one-half of all middle-grade students remain with the same classmates all day.

These are disquieting findings. They mean that learning opportunities in the middle grades remain highly stratified – despite a middle school philosophy that encourages heterogeneous classes, despite various calls for school reform and restructuring to develop critical thinking skills among the nation's youth, and despite exhortations to insure that all children are provided equal access to learning opportunities. If schools serving early adolescents are ever to achieve these goals, they must find effective alternatives to tracking.

1. John Bolvin, "Classroom Organization," in *Encyclopedia of Educational Research* (New York: Macmillan, 1985), pp. 265-74; and Penelope Peterson, Louise Wilkinson, and Maureen Hallinan, eds., *The Social Context of Instruction* (New York: Academic Press, 1984).
2. William M. Alexander and Paul S. George, *The Exemplary Middle School* (New York: Holt, Rinehart & Winston, 1981).
3. Walter Schafer and Carol Olexa, *Tracking and Opportunity* (Scranton, Pa.: Chandler Publishers, 1971), pp. 62-63.
4. Robert E. Slavin, "Ability Grouping and Student Achievement in Elementary Schools: A Best-Evidence Synthesis," *Review of Educational Research*, vol. 57, 1987, pp. 347-50; and idem, "Synthesis of Research on Grouping in Elementary and Secondary Schools," *Educational Leadership*, vol. 46, 1988, pp. 67-77.
5. Jomills Henry Braddock II, *Tracking of Black, Hispanic, Asian, Native American, and White Students: National Patterns and Trends* (Baltimore: Johns Hopkins University Center for Research on Effective Schooling for Disadvantaged Students, 1989).
6. Carnegie Task Force on Education of Young Adolescents, *Turning Points: Preparing American Youth for the 21st Century* (New York: Carnegie Council on Adolescent Development of the Carnegie Corporation, 1989); and Jeffrey Schneider, "Tracking: A National Perspective," *Equity and Choice*, vol. 6, 1989, pp. 11-17.
7. Joyce L. Epstein and Douglas J. Mac Iver, *Education in the Middle Grades: Overview of a National Survey of Practices and Trends* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1988).
8. Ibid., p. 12.
9. Ibid., pp. 14-15.
10. Robert E. Slavin, "Grouping for Instruction: Equity and Effectiveness," *Equity and Excellence*, in press.
11. Jeannie Oakes, *Keeping Track: How Schools Structure Inequality* (New Haven: Yale University Press, 1985); and Robert E. Slavin, "Synthesis of Research on Grouping in Elementary and Secondary Schools," *Educational Leadership*, vol. 46, 1988, pp. 67-77.
12. Jomills Henry Braddock II and James M. McPartland, "Alternatives to Tracking on the Agenda for Restructuring Schools," *Educational Leadership*, in press.
13. Robert E. Slavin, *Cooperative Learning* (New York: Longman, 1983).

A Day in the Life of an Exemplary Middle School

Victoria Vlasfar

Vladimir Bobak

Peggy Schuh (above) gives students individual instruction in math class. Classmates (below) carry out a cooperative learning activity. Students in other math classes track their investments in the stock market — an award-winning project developed by Schuh. Student contributions are limited to a few dollars each, and a local broker acts as advisor for the project. Profits or losses are shared at the end of the term.

Staffing Decisions In the Middle Grades:

Balancing Quality Instruction and Teacher/Student Relations

The teaching staff is the foundation on which a successful learning environment for early adolescents is built, Mr. McPartland maintains — and the way in which a staff is assembled and deployed can make a major difference in student outcomes.

BY JAMES M. McPARTLAND

IT IS NEVER easy to succeed at the dual goals of providing high-quality instruction and creating positive teacher/student relations in the middle grades. At least part of the difficulty can be attributed to staffing practices and the organization of middle-grade schools. The Carnegie Task Force on Education of Young Adolescents acknowledges this problem:

> Many teachers of young adolescents today dislike their work. . . . For some, this feeling comes from the structure of middle grade schools; like the students, they feel overwhelmed by the impersonality of the environment, and they feel ineffective with the large number of students they must teach. For others, it comes from a lack of training related to early adolescence.[1]

But staffing patterns can also make a real difference in helping actually to achieve these goals. In this article, I discuss how organizational decisions about departmentalization and other staffing arrangements affect the goals of middle schools. First, I present data from Education in the Middle Grades: A National Survey of Practices and Trends, conducted by the Johns Hopkins University Center for Research on Elementary and Middle Schools, to describe current staffing practices in the middle grades. Next, I present state data to show how staffing patterns that best serve one goal may sometimes interfere with the accomplishment of another important goal. Finally, I suggest different staffing decisions that can help to balance competing middle school goals.

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NATIONAL TRENDS

Theoretically, staffing practices in the middle grades can vary along a continuum from the completely self-contained classroom, in which a single teacher is in charge of all major subject-matter instruction for all students in a particular group, to the completely departmentalized approach, in which each teacher specializes in a single subject area and instructs several different classes of students in this subject. Between these two extremes lie several staffing patterns, such as semidepartmentalized, in which a teacher instructs more than one class in more than one related subject (such as math and science) but not in all major subjects, and team teaching, in which two or more teachers provide instruction to a shared group of students.

The staffing alternatives determine the number of different teachers each student will encounter for instruction in the major subjects. At one extreme, a particu-

Vladimir Bulatov

Vladimir Bulatov

After completing lab assignments, eighth-grade science students in Bridget Davenport's class review their findings (above), then begin a discussion of covalent bonding (below). Extraordinary contributions to class discussion earn extra credit for students.

A Day in the Life of an Exemplary Middle School

lar student will have a single teacher for most of the day. At the other extreme, a student will change teachers for each period of the school day and receive instruction from four, five, or more teachers for the major academic subjects. At the intermediate points along the continuum, a student will encounter two or three different teachers for instruction in the major subjects.

Teaching staffs in the middle grades can also differ in the kinds of previous training and certification each member of the faculty has. Some middle-grade schools may employ primarily teachers with an elementary school background, while other middle-grade schools may have faculties that, in the main, have been prepared and certified to teach specific subjects in the secondary grades. Many middle-grade schools will have a mix of teachers of these two types.

Tabulations from the national survey show that middle-grade education in the U.S. is conducted primarily by teachers who are certified in specific subjects for secondary school instruction and who are assigned to highly departmentalized instructional roles. However, there are some interesting exceptions, especially in the early middle grades.

In the national survey we asked principals to report the number of different teachers assigned to instruct the typical student in the basic subjects at each grade level. This number could range from one teacher to four or five different teachers. Table 1 shows that American schools are much more likely to use specialized staffing patterns in the middle grades, with a definite tendency (from grade 5 through grade 9) to move from a smaller number of different teachers to a larger number of different teachers for each student.

Table 1 shows that only 29% of fifth-grade students receive all their instruction from a single teacher. Moreover, that percentage decreases to 7.5% in grade 6 and to 1% or less in grades 7, 8, and 9.[2] The same trend is apparent in the percentages of students who receive their instruction from just two different teachers: the 25.9% in grade 5 decreases to 14.1% in grade 6 and to vanishingly tiny percentages in grades 7, 8, and 9. Combining the first two rows of Table 1, we can see that only in grades 5 and 6 do significant proportions of students receive the major portion of their instruction from no more than two different teachers (54.9% in grade 5 and 21.6% in grade 6).

TABLE 1.

Number of Different Teachers in the Major Academic Subjects for the Typical Middle-Grade Student

	Grade				
Different Teachers Per Student	**5 %**	**6 %**	**7 %**	**8 %**	**9 %**
1	29.0	7.5	1.2	0.9	0.4
2	25.9	14.1	1.6	1.1	0.0
3	20.8	16.4	4.8	2.9	1.3
4	12.5	19.1	20.0	19.0	14.2
5+	11.8	42.9	72.4	76.1	84.1
Average number of different teachers at each grade level	2.5	3.8	4.6	4.7	4.8

At the other extreme, we see that even in grade 5 nearly 12% of students have five or more different teachers to cover the major subjects. This figure rises to 42.9% in grade 6 and to more than 70% in grades 7, 8, and 9. Combining the final two rows of percentages in Table 1, we see that more than 90% of students in grades 7, 8, and 9 are in highly departmentalized schools in which they have four or more different teachers for the major subjects.

These trends vary somewhat for schools of different sizes and for schools with different grade spans. Schools in our sample that cover all elementary grades (such as K-8 schools) have a somewhat larger percentage of self-contained classrooms in grades 5 and 6. Yet even in these schools less than 40% of fifth-graders and only about 20% of sixth-graders are in self-contained classrooms. At the other extreme, the traditional junior high school (grades 7 through 9) is the most fully departmentalized at each grade level. The typical middle school, serving grades 6 through 8, exhibits nearly the same distributions as those shown in Table 1 for all schools.

Thus U.S. schools covering the middle grades lean strongly in the direction of departmentalized staffing. The number of different teachers per student averages 2.5 in grade 5, 3.8 in grade 6, and over 4.5 in grades 7, 8, and 9 (bottom row of Table 1). Some schools limit departmentalization in grade 5 or grade 6 by keeping the number of different teachers per student at two, but extensive departmentalization is almost universal in grades 7, 8, and 9.

In our national survey, we also asked principals how many of the teachers in their schools have elementary certification, how many have secondary subject-matter certification, and how many have specific middle-grade certification. Our data indicate that teachers with specific certification and extensive preparation for middle-grade instruction are not common. Indeed, states are only recently beginning to foster such specialized offerings in teacher training programs, and the programs that do exist have not yet become very popular.[3] Our data also show that teachers with secondary subject-matter certification predominate on middle-grade faculties, especially in the typical junior highs and in schools serving grades 7 and 8.

Table 2 shows the distribution of middle-grade students in schools with different mixes of teachers by type of certification. Some 51.7% of all middle-grade students are in schools in which less than one-quarter of the teachers hold elementary certification, and 28.4% are in schools in which between one-quarter and one-half of the teachers hold elementary certification. Combining these percentages shows that 80.1% of middle-grade students are in schools in which less than half of the faculty members hold elementary certification. Table 2 also shows that teachers with elementary certification are less common in schools that serve grades 7 and 8 than in middle schools and that in the typical junior high (grades 7 through 9) they are rare indeed.

Conversely, the bottom part of Table 2 shows the predominance of teachers in middle-grade education who hold secondary subject-matter certification. Overall, 59.4% of middle-grade students attend schools in which a majority of the teachers hold secondary subject-matter certification. Once again, junior highs that serve grades 7 through 9 show the most

extreme concentrations of teachers who hold secondary subject-matter certification.

ORIENTATION OF TEACHERS

Such issues as departmentalization and the certification of teachers in the middle grades are interesting because different staffing patterns can affect the orientations teachers bring to their classrooms. Teachers with secondary certification or those who work in fully departmentalized schools are most likely to exhibit a "subject-matter" orientation. They are apt to take special pride in being expert in a particular subject area, and they can develop outstanding classroom activities when they are responsible for a limited number of preparations in a single subject-matter field. Such teachers can be very valuable in meeting the need for more demanding curriculum content in the middle grades and in helping early adolescents develop the higher-order thinking skills appropriate to each subject area. It is reasonable to expect that specialized teachers with a strong subject-matter orientation can best achieve the goals of providing high-quality instruction in the content areas in the middle grades.

On the other hand, there is something to be gained in the middle grades from teachers with elementary certification who can work in the self-contained or semidepartmentalized settings that are more likely to support a "student-centered" orientation. Such teachers may tend to be more concerned with *both* the academic and the personal development of individual students. Because they are responsible for a smaller total number of students, they may also be better able to attend to the needs and difficulties of individual students.

This student-centered orientation can also be very useful in the middle grades to address the interpersonal and emotional aspects of early adolescence. Positive, caring relationships between teachers and students are especially important in the middle grades because students at this stage of development continue to need adult guidance and support, even as they seek greater independence and self-reliance and become more susceptible to pressures from peers and nonschool influences. Thus we might predict that the goal of providing a supportive human environment would be accomplished more often when teachers have had elementary school training that emphasizes the development of the "whole child" and when staffing assignments allow teachers to concentrate on a limited number of students.

This contrast between subject-matter orientation and student-centered orientation points to some potential conflicts in school goals created by staffing patterns. Staffing practices that best serve the goal of high-quality instruction in content may interfere with the development of positive and supportive relationships between teachers and students. And staffing ar-

TABLE 2.

Percentage of Middle-Grade Students in Schools with Different Proportions of Teachers Certified for Elementary or Secondary Teaching

	Grade Span of School			
Teachers with Elementary Certification %	All Middle-Grade Schools %	6-8 %	7-8 %	7-9 %
0-25	51.7	35.6	58.8	83.1
25-50	28.4	38.5	27.4	12.0
50-75	12.3	16.0	10.9	4.4
75-100	7.6	9.9	2.9	0.5
Teachers with Secondary Certification %				
0-25	21.7	21.0	11.5	6.9
25-50	18.9	25.8	14.1	8.6
50-75	25.5	31.1	32.0	13.7
75-100	33.9	22.1	42.4	70.8

A Day in the Life of an Exemplary Middle School

Above, a sixth-grader presents a science project on acid rain to classmates. Other students studied waste disposal, the ozone layer, and the Alaskan oil spill. Below, a bulletin board illustrates the environmental focus of science classes for the 1989-90 school year.

Does departmentalization increase the quality of instruction and raise student achievement at some cost to teacher/student relationships?

rangements that produce the most supportive human environments may work against the development of effective learning activities in each subject area.

EFFECTS ON STUDENTS

Using 1986 Pennsylvania data on sixth-graders and their schools, we tested the idea that staffing decisions in the middle grades may sometimes involve tradeoffs between the goals of high-quality subject-matter instruction and positive teacher/student relations. Students from 433 Pennsylvania schools that included a sixth grade completed achievement tests in each major subject and answered questions about conditions in their schools, including 14 items about teacher/student relations and five items about their satisfaction with learning activities in each major subject area. Students also reported such background information as their parents' level of education and the availability of educational materials in the home.[4]

Principals in each school provided information on their staffing patterns, including the number of different teachers for the typical sixth-grader and the incidence of self-contained, departmentalized, or mixed teaching assignments. Thus we can study how the academic achievement and attitudes of sixth-graders are related to staffing patterns, with statistical controls on the students' family backgrounds and the size and location of the school.

Does departmentalization increase the quality of instruction and raise student achievement while decreasing the quality of teacher/student relationships? The research provides a complex but coherent picture.

We found strong evidence that the relationships between teachers and students in the sixth grade are more positive in schools that assign teachers to self-contained classrooms than in schools that are departmentalized. In general, the fewer different teachers per student in a school, the more likely sixth-graders are to agree strongly with statements such as "I feel my teacher understands me" or "I feel my teacher cares about my class." This effect remains statistically significant when school size and location and the socioeconomic status of students are taken into account.[5]

On the other hand, research also supports the positive effect of departmentalization on student achievement, especially in the later middle grades in such specialized subjects as science and history. The positive effects that specialized teachers can have on student achievement have been more thoroughly documented for seventh-graders than for sixth-graders. Recent analyses of the 1985-86 National Assessment of Educational Progress (NAEP) found that seventh-graders who were taught by specialized subject-matter experts showed higher achievement in science and math than did seventh-graders taught by less-specialized teachers.[6]

Consistent with the NAEP results, our state data from Pennsylvania showed that sixth-graders' subjective perceptions of the quality of instruction in science and social studies were much higher in departmentalized settings. Moreover, the actual performance of sixth-graders in departmentalized schools was also significantly higher in science and social studies relative to their achievement in reading or math.[7] However, when average achievement differences between schools were examined independently for each subject rather than for one subject relative to others, it appeared that sixth-graders from self-contained classrooms performed best, especially if the students were from lower socioeconomic backgrounds.[8]

Thus the sixth-grade achievement results are open to different interpretations. If the comparison of performance in specific subjects relative to performance in other subjects is assumed to be the most appropriate methodology (since longitudinal controls on earlier achievement levels are not possible with our state data), then the sixth-grade results match the results of previous research with national samples of seventh-graders. That is, middle-grade teaching staffs made up of subject-matter specialists can be expected to produce higher student achievement in such subjects as science and history. But if the statistical controls on family background are given greater weight, the state results would postpone the use of departmentalization until after grade 6, especially for schools with large populations of disadvantaged students.

Taken together these findings give some direct empirical evidence of the actual tradeoffs between teacher/student relations and student achievement as a result of different decisions with regard to middle-grade staffing. In 1990 new national data on the effects of departmentalization on middle-grade students will become available, which will allow us to reexamine these issues.[9]

STAFFING PATTERNS AND SCHOOL GOALS

The practical implication of the effects of staffing patterns on goals for the middle grades is that schools should strive not to lean too much in one direction or the other. Most middle-grade schools will wish to provide both high-quality instruction and a supportive human environment. Two approaches appear feasible: 1) to balance staffing decisions between the extremes so that neither goal is overlooked or 2) to compensate for imbalances in staffing patterns by using school practices designed to achieve the goal that is most at risk.

Departmentalizing gradually during the middle-grade years is one important way of balancing the risks to major goals, especially for schools that serve disadvantaged students, who seem to fare better with a limited number of different teachers. For example, a school might keep self-contained classrooms or semidepartmentalized assignments (involving only two different teachers for each student) in grades 5, 6, and possibly 7 and move to fully departmentalized assignments for the higher grades. In the case of two-teacher teams, one might be in charge of math and science instruction while the other handles reading, language arts, and social studies. Such arrangements permit some degree of specialization and expertise in instruction while limiting the num-

ber of different teachers with whom each student must deal. Indeed, our national survey data indicate that some gradual phasing in of departmentalization is now occurring in some schools.

A similar strategy to balance risks would be to see to it that some teachers with elementary school training are included on the staffs of middle-grade schools and assigned primarily to students who have just made the transition to the middle-grade school. Of course, a preferred direction for the future is to develop training and certification for teachers that explicitly focus on the middle-grade curriculum and on the needs of early adolescents so that individual teachers will be able to strike an appropriate balance between subjects and students.[10]

However, because of various local conditions, it may not always be possible to strike a happy medium with regard to staffing decisions in the middle grades. School size, the expertise of the existing staff, certification opportunities, and collective bargaining agreements may constrain staffing decisions in a particular school. It then becomes important to recognize the potential weaknesses of the staffing patterns being used and to compensate with specific actions to offset them.

For example, a fully departmentalized program offering high-quality instruction can be made to work well even for sixth-graders if the school recognizes that other actions need to be taken to provide close teacher support and supervision. Such actions might include assigning each student a specific staff member as advocate or mentor and providing a regularly scheduled time when students and mentors can meet to discuss the students' problems and progress. In the same vein, interdisciplinary teams of teachers who share the same instructional group of students can deal with the needs of individual students if time and training are available to team members. In other cases, such as self-contained classrooms in which the human relations are good but instruction is not strong in all subject areas, inservice training activities or specialized support can be provided to strengthen classroom activities in science, history, or any other subject in which teachers may not have been well-trained.

In general, educational leaders in the middle grades should understand how particular staffing decisions involve trade-offs between important school goals, so that they can seek sensible balance whenever possible and take specific actions to minimize any weaknesses that remain. The teaching staff is the foundation on which a successful learning environment for early adolescents is built, and the way in which a staff is assembled and deployed can make a major difference in student outcomes.

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1. Carnegie Task Force on Education of Young Adolescents, *Turning Points: Preparing American Youth for the 21st Century* (New York: Carnegie Council on Adolescent Development of the Carnegie Corporation, 1989), p. 58.

2. Because our sample is of schools that contain grade 7, strictly elementary schools (K-5 or K-6) are excluded. Such schools are usually smaller and staffed primarily by elementary-certified teachers, so they can be expected to have much higher percentages of self-contained classroom assignments for grades 5 and 6 than the percentages shown in Table 1.

3. Carnegie Task Force. . . , pp. 58-60.

4. The student data were provided by the Pennsylvania Educational Quality Assessment (EQA), which is administered annually by the state education agency to districts that request it. The sample is large and diverse but not representative of the entire state, since the two largest districts are not included. Staffing patterns were reported on a special supplementary survey administered to participating schools by Johns Hopkins University in cooperation with the state agency. For further details, see James M. McPartland, J. Robert Coldiron, and Jomills H. Braddock II, *School Structures and Classroom Practices in Elementary, Middle, and Secondary Schools* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1987).

5. See James M. McPartland, *Balancing High Quality Subject-Matter Instruction with Positive Teacher-Student Relations in the Middle Grades* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1987). See also Jacquelynne Eccles and Carol Midgley, "Stage-Environment Fit: Developmentally Appropriate Classrooms for Young Adolescents," in Carole Ames and Russell Ames, eds., *Research on Motivation in Education*, vol. 3 (New York: Academic Press, 1989), pp. 139-86.

6. See James M. McPartland and Shi-Chang Wu, *Instructional Practices in the Middle Grades: National Variations and Effects* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1988).

7. McPartland, op. cit.

8. See Henry Jay Becker, *Addressing the Needs of Different Groups of Early Adolescents: Effects of Varying School and Classroom Organizational Practices on Students from Different Social Backgrounds and Abilities* (Baltimore: Johns Hopkins University Center for Research on Elementary and Middle Schools, 1987).

9. In 1990 the National Center for Education Statistics of the U.S. Department of Education is scheduled to make available to the public the National Education Longitudinal Study of 1988 (NELS:88) data covering a large national sample of eighth-grade students and their schools.

10. Carnegie Task Force. . . , op. cit. K

A Day in the Life Of an Exemplary Middle School

Above, a sixth-grader answers questions about his project on the ozone layer. Below, sixth-graders take part in a science game designed to help them learn about the interrelationships of resources, habitat, and the size of deer populations. An "outdoor lab" (not shown) was funded by parents, and the formerly manicured lawn of a courtyard now sports indigenous grasses and a small swamp.